

WHAT IS CLAIMED IS:

1. A reader/writer comprising:  
an antenna substrate provided with a loop antenna; and  
a control substrate provided with a coil and a  
transmitting/receiving circuit; wherein  
a magnetic coupling between the coil and the loop antenna  
causes the loop antenna and the transmitting/receiving circuit to  
be electrically connected to each other.
2. The reader/writer according to Claim 1, wherein a  
magnetic body is arranged on a surface of the antenna substrate  
facing the control substrate, and the coil and the loop antenna  
are magnetically coupled through a space defined by the magnetic  
body.
3. The reader/writer according to Claim 1, wherein the coil  
provided on the control substrate is positioned inside an inner  
portion of the loop antenna and adjacent to the inner portion of  
the loop antenna.
4. The reader/writer according to Claim 1, wherein the  
antenna substrate is provided with an opening inside the loop  
antenna and an upper portion of the coil is disposed to extend  
through the opening.

5. The reader/writer according to Claim 1, wherein a plurality of coils are located on the control substrate.

6. The reader/writer according to Claim 5, wherein magnetic sheets are fixed on the control substrate surrounding the coils, and magnetic sheets are fixed on a surface of the antenna substrate facing the control substrate.

7. The reader/writer according to Claim 5, wherein the coils provided on the control substrate have opposite polarities.

8. The reader/writer according to Claim 1, wherein the coil includes a transversely wound coil provided on the control substrate.

9. A mobile communication apparatus comprising the reader/writer according to Claim 1.

10. The mobile communication apparatus according to Claim 9, comprising a package including an opening and a lid member that can be fitted in the opening, the package including the control substrate arranged at a position facing the opening, and the lid member including the antenna substrate.